

ABSTRACT

The present invention relates to a modular interconnection architecture for an expandable multiprocessor machine. It comprises a first interconnection level (MI) comprising connection agents (NCS*i*) that connect the multiprocessor modules and handle the transactions between the multiprocessor modules, and a second interconnection level (SI) comprising external connection nodes (NCE*j*) that connect the nodes (N*j*) to one another and handle the transactions between the nodes (N*j*). Each external connection node (NCE*j*) comprises two connection agents identical to the connection agent (NCS*i*), connected head-to-tail, one of the two agents (NCS'*j*) receiving and filtering the transactions sent by the node (N*j*) to which it is connected, and the other agent (NCS"*j*) receiving and filtering the transactions sent by the other nodes (N*j*) to which it is connected.

Its applications specifically include the construction of an entire range of machines: UMA, QUASI-UMA, NUMA, cluster, etc.

FIG. 5